



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/815,126

03/31/2004

Darshan B. Joshi

VRT0131US

9216

60429 7590 12/05/2008  
CAMPBELL STEPHENSON LLP  
11401 CENTURY OAKS TERRACE  
BLDG. H, SUITE 250  
AUSTIN, TX 78758

EXAMINER

KAWSAR, ABDULLAH AL

ART UNIT

PAPER NUMBER

2195

MAIL DATE

DELIVERY MODE

12/05/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,126	<b>Applicant(s)</b> JOSHI ET AL.	
	<b>Examiner</b> ABDULLAH AL KAWSAR	<b>Art Unit</b> 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 27-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-25 and 27-30 are pending.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/22/2008 has been entered.

#### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 21-25 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As per claim 21, the claimed "computer readable-medium" is broad and can include both readable and storage medium, wherein computer-readable medium can include non-tangible medium. Applicant is suggested to amend the claim to "a computer-readable storage medium" as recited in paragraph 0089 in the specification.

#### ***Specification***

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the

Art Unit: 2195

following is required: claim 21, "a computer-readable medium" is not disclosed in the specification to support the claimed limitation.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 5-8, 11-12, 15-17, 20-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Short et al.(Short) US Patent No. 6178529, in view of Chao et al.(Chao) US Patent No. 6393485.

8. As per claim 1, Short teaches the invention substantially as claimed including a method comprising:

determining whether a resource in a first cluster can be allocated to provide a quantity of the resource to an application (col 10, lines 62-67 through col 11, lines 1-4);

if the resource in the first cluster cannot be allocated to provide the quantity of the resource to the application, determining whether the first cluster can be reconfigured to provide the quantity of the resources to the application (col 8, lines 27-36);

if the first cluster can be reconfigured, enabling the first cluster to provide the quantity of the resource to the application by reconfiguring the first cluster (col 1, lines 31-34; col 7, lines 32-43); and

Short does not specifically disclose if the first cluster cannot be reconfigured, restarting the application in a second cluster having a sufficient amount of the resource to provide the quantity of the resource to the application.

However, Chao teaches if the first cluster cannot be reconfigured, restarting the application in a second cluster having a sufficient amount of the resource to provide the quantity of the resource to the application (col 3, lines 23-27; col 5, lines 40-45; col 7, lines 34-43).

9. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Chao into the method of Short to restarting the application in a second cluster having a sufficient amount of the resource to provide the quantity of the resource to the application. The modification would have been obvious because one of the ordinary skills of the art would want to be able to utilize the available resource in a multi-cluster based system between different clusters, nodes and servers to prevent system failure.

10. As per claim 2, Short teaches selecting the application to be allocated the quantity of the resource from a plurality of applications in accordance with a business priority for the application (col 7, lines 22-31).

11. As per claim 5, Short teaches monitoring performance of a plurality of applications running in the first cluster (col 2, lines 1-5); and

if performance of one application of the plurality of applications fails to satisfy a criterion, requesting to allocate a second quantity of the resource for the one application to enable the performance of the one application to satisfy the criterion(col 1, lines 31-34).

12. As per claim 6, Short teaches the first cluster is remote from the second cluster (col 1, lines 62-65; col 2, lines 51-54).

13. As per claim 7, Short teaches the determining whether the resource in the first cluster can be allocated to provide the quantity of the resource to the application is performed in response to failure of the application ( col 7, lines 32-35).

14. As per claim 8, Short teaches the determining whether the resource in the first cluster can be allocated to provide the quantity of the resource to the application is performed in response to starting the application (col 8, lines 3-6; lines 26-31).

15. As per claims 11, 16 and 21, they have similar limitations as claim 1 above. Therefore, they are rejected under the same rational as of claim 1 above.

16. As per claims 12, 17 and 22, they have similar limitations as claim 2 above. Therefore, they are rejected under the same rational as of claim 2 above.

Art Unit: 2195

17. As per claims 15, 20 and 25, they have similar limitations as claim 5 above. Therefore, they are rejected under the same rational as of claim 5 above.

18. Claims 3, 9, 10, 13, 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Short et al.(Short) US Patent No. 6178529, in view of Chao et al.(Chao) US Patent No. 6393485, as applied to claims 1, 11, 16 and 21 above, and further in view of Trossman et al.(Trossman) US Patent No. 7308687.

19. As per claim 3, Short and Chao do not specifically disclose adding a second quantity of the resource to the first cluster.

However, Trossman teaches adding a second quantity of the resource to the first cluster ( col 11, 53-57).

20. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Fong into the combined method of Chao and Short to adding a second quantity of the resource to the first cluster. The modification would have been obvious because one of the ordinary skills of the art would want to be able to add or remove resources to the cluster according to the application necessity to be able to have a stable system execution.

Art Unit: 2195

21. As per claim 9, Trossman teaches the determining whether the resource in the first cluster can be allocated to provide the quantity of the resource to the application is performed in response to identifying a problem with performance of the application (col 8, lines 12-23).

22. As per claim 10, Trossman teaches the determining whether the resource in the first cluster can be allocated to provide the quantity of the resource to the application is performed in response to determining that the application is not in conformance with a policy (col 3, lines 35-45, lines 61-67).

23. As per claims 13, 18 and 23, they have similar limitations as claim 3 above. Therefore, they are rejected under the same rational as of claim 3 above.

24. Claims 4, 14, 19 and 24, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Short et al.(Short) US Patent No. 6178529, in view of Chao et al.(Chao) US Patent No. 6393485, as applied to claims 1, 11, 16 and 21 above, and further in view of Fong et al.(Fong) US Patent No. 6366945.

25. As per claim 4, Short and Chao do not specifically disclose partitioning the resource within the first cluster.

However, Fong teaches partitioning the resource within the first cluster (col 1, lines 6-12; lines 38-45).



Art Unit: 2195

26. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Fong into the combined method of Chao and Short to partitioning the resource within the first cluster. The modification would have been obvious because one of the ordinary skills of the art would want to be able to modify the available resources to illuminate the problematic resources and isolate them from rest of the application for repair and have the system running without interruption.

27. As per claim 27, Fong teaches wherein the first cluster comprises a plurality of nodes, wherein at least one node among the plurality of nodes is a multiprocessor node, and the reconfiguring comprises partitioning the multiprocessor node into multiple nodes (col 1, lines 6-12; lines 14-26; col 3, lines 11-19; col 5, lines 9-21).

28. As per claims 14, 19 and 24, they have similar limitations as claim 4 above. Therefore, they are rejected under the same rationale as of claim 4 above.

29. As per claims 28-30, they have similar limitations as claim 27 above. Therefore, they are rejected under the same rationale as of claim 27 above.

### ***Response to Arguments***

30. Applicant's arguments with respect to claim(s) have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Art Unit: 2195

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULLAH AL KAWSAR whose telephone number is (571)270-3169. The examiner can normally be reached on 7:30am to 5:00pm, EST.

32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng Ai T. An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

33. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195

/Abdullah-Al Kawsar/  
Examiner, Art Unit 2195